

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: RTSP-0283  
Inventors: Monia and Cowsert  
Serial No.: Not Yet Assigned  
Filing Date: Herewith  
Examiner: Not Yet Assigned  
Group Art Unit: Not Yet Assigned  
Title: Antisense Modulation of P13 Kinase P110  
Beta Expression

#6/I.D.S.

"Express Mail" Label No. EV017479170US  
Date of Deposit March 8, 2002

I hereby certify that this paper is being deposited with the  
United States Postal Service "Express Mail Post Office  
to Addressee" service under 37 CFR 1.10 on the date  
indicated above and is addressed to the Assistant Commissioner  
for Patents, Washington, D.C. 20231

By Jane Massey Licata  
Typed Name: Jane Massey Licata, Reg. No. 32,257

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

## INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R.  
§§1.97-1.98, information relating to the above-identified  
application is hereby disclosed. Inclusion of information in  
this statement is not to be construed as an admission that this  
information is material as that term is defined in 37 C.F.R.  
§1.56(b).

(XX) In accordance with §1.97(b), since this Information  
Disclosure Statement is being filed either within three  
months of the filing date of the above-identified

application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, or before the mailing date of a first Office Action on the merits of the above-identified application, no additional fee is required.

( ) In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, therefore:

( ) Certification in Accordance with §1.97(e) is set forth below; or

( ) The fee of \$180.00 as set forth in §1.17(p) is attached.

( ) In accordance with §1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311 but before the payment of the Issue Fee, therefore included are: Certification in Accordance with §1.97(e); Petition Requesting Consideration of the Information Disclosure Statement; and the fee of \$130.00 as set forth in §1.17(i)(1).

( ) Copies of each of the references listed on the attached Form PTO-1449 (modified) are enclosed herewith.

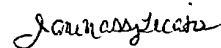
(XX) In accordance with §1.98(d), copies of some or all of the references listed on the attached Form PTO-1449 (modified) are not enclosed herewith because they were previously submitted to the U.S. Patent and Trademark Office in prior application Serial No. 09/392,350, filed September 9, 1999, for which a claim for priority under 35 U.S.C. §120 has been made in the instant application.

Please charge any deficiency or credit any overpayment to Deposit Account No. 50-1619. This form is submitted in duplicate.

( ) The relevance of the listed references in a foreign language is as stated in the specification at pages @@.

(XX) All listed references are in the English language.

Respectfully submitted,



Jane Massey Licata  
Registration No. 32,257

Date: March 8, 2002

Licata & Tyrrell P.C.  
66 E. Main Street  
Marlton, New Jersey 08053

(856) 810-1515

Sheet 01 of 03

Form PTO-1449 Modified		Docket No. RTSP-0283	Serial No. Not Yet Assigned
List of Patents and Publications Cited by Application (Use several sheets if necessary)		Applicant Monia and Cowsert	
		Filing Date Herewith	Group Not Yet Assigned
U.S. Department of Commerce Patent and Trademark Office			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AA	Deora et al., A redox-triggered ras-effector interaction. Recruitment of phosphatidylinositol 3'-kinase to Ras by redox stress, J. Biol. Chem., 1998, 273:29923-29928	
	AB	Fry, Structure, regulation and function of phosphoinositide 3-kinases, Biochim. Biophys. Acta., 1994, 1226:237-268	
	AC	Graness et al., A novel mitogenic signaling pathway of bradykinin in the human colon carcinoma cell line SW-480 involves sequential activation of a Gq/11 protein, phosphatidylinositol 3-kinase beta, and protein kinase Cepsilon, J. Biol. Chem., 1998, 273:32016-32022	
	AD	Hu et al., Cloning of a novel, ubiquitously expressed human phosphatidylinositol 3-kinase and identification of its binding site on p85, Mol. Cell. Biol., 1993, 13:7677-7688	
	AE	Molz et al., Cpk is a novel class of Drosophila PtdIns 3-kinase containing a C2 domain, J. Biol. Chem., 1996, 271:13892-13899	
	AF	Schu et al., Phosphatidylinositol 3-kinase encoded by yeast VPS34 gene essential for protein sorting, Science, 1993, 260:88-91	
	AG	Stirdivant et al., Cloning and mutagenesis of the p110 alpha subunit of human phosphoinositide 3'-hydroxykinase, Bioorg. Med. Chem., 1997, 5:65-74	
	AH	Stoyanov et al., Cloning and characterization of a G protein-activated human phosphoinositide-3 kinase, Science, 1995, 269:690-693	
	AI	Ui et al., Wortmannin as a unique probe for an intracellular signalling protein, phosphoinositide 3-kinase, Trends Biochem. Sci., 1995, 20:303-307	
	AJ	Vanhaesebroeck et al., P110delta, a novel phosphoinositide 3-kinase in leukocytes, Proc. Natl. Acad. Sci. U. S. A., 1997, 94:4330-4335	

Sheet 02 of 03

<b>Form PTO-1449 Modified</b>  List of Patents and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce		Docket No. <b>RTSP-0283</b>	Serial No. <b>Not Yet Assigned</b>
		Applicant <b>Monia and Cowsert</b>	
		Filing Date <b>Herewith</b>	Group <b>Not Yet Assigned</b>
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
/	AK	Vlahos et al., "A specific inhibitor of phosphatidylinositol 3-kinase, 2-(4-morpholinyl)-8-phenyl-4H-1-benzopyran-4-one (LY294002), J. Biol. Chem. <b>1994</b> 269:5241-5248	
	AL	Woscholski et al., "A comparison of demethoxyviridin and owrtmannin as inhibitors of phosphatidylinositol 3-kinase, FEBS Lett. <b>1994</b> 342:109-114	
/	AM	Milner et al., "Selecting effective antisense reagents on combinatorial oligonucleotide arrays", Nature Biotechnolgy <b>1997</b> 15:537-541	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

Sheet 03 of 03

<b>Form PTO-1449 Modified</b>				<b>Docket No.</b> RTSP-0283		<b>Serial No.</b> Not Yet Assigned	
List of Patents and Publications Cited by Applicant (Use several sheets if necessary)				<b>Applicant</b> Monia and Cowsert			
				<b>Filing Date</b> Herewith		<b>Group</b> Not Yet Assigned	
U.S. Department of Commerce Patent and Trademark Office							
<b>U. S. PATENT DOCUMENTS</b>							
<b>Examiner</b>		<b>Document</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>	
	AA	5,776,689	7-7-98	Karin et al.	435	6	
	AB	5,801,154	9-1-98	Baracchini et al.	514	44	
<b>FOREIGN PATENT DOCUMENTS</b>							
<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Country</b>	<b>Translation</b> YES NO		
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			